

MINI GUIDE:

Medical Streaming Solutions for the Healthcare Industry



At the intersection of healthcare and technology, video streaming is being used for a wide range of applications. Telehealth, clinical education, and video-enabled surgical devices are among the most obvious examples — but these only scratch the surface.

In this mini guide, we'll take a detailed look at how healthcare leaders are leveraging streaming to push the industry forward. From there, we'll cover the capabilities needed to get in on this trend.

Medical Streaming Use Cases



Medical Training

Knowledge transfer comes easy with video streaming — facilitating everything from live surgical demonstrations to recorded simulations.



Medical Devices

Whether taking the form of a smartwatch or a video-enabled surgical instrument, streaming keeps patients and doctors connected from beyond the clinic walls.



Hospitals

The next generation of smart hospitals will go beyond video surveillance to incorporate interactive streaming solutions and real-time health analytics.



AI-Enabled Tech

Smart video monitors with respiratory tracking, fever-detection surveillance cameras, and virtual doctor visits are among the many ways artificial intelligence (AI) is being used in healthcare.



Public Health Agencies

Post-pandemic initiatives will leverage video streaming technology to revamp public health surveillance and improve emergency preparedness.



Aging Care and Rehabilitation

Video streaming and interactive applications keep those in long-term care facilities connected with the outside world, whereas augmented reality (AR) shows promise in rehabilitation.



Internet of Medical Things

Camera-aided surgical devices, digital kiosks, and nonsurgical robotics all make up the Internet of Medical Things (IoMT) in today's hospital environments.



Trending Technologies in Healthcare



TELEHEALTH AND VIRTUAL SERVICES

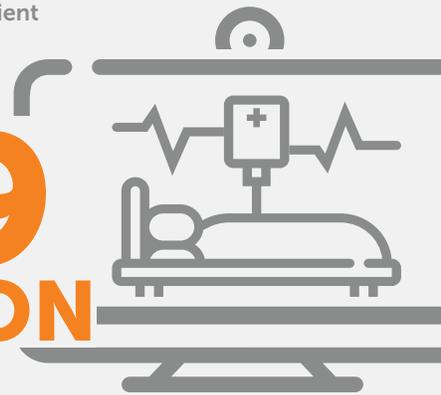
The CDC's regulatory waivers during the COVID-19 pandemic

154%
INCREASE
IN TELEHEALTH VISITS¹

REMOTE PATIENT MONITORING

The global remote patient monitoring market is projected to reach a value of U.S.

\$1.9
BILLION
BY 2026²



HEALTHCARE INTERNET OF THINGS (IOT)

An estimated

20-30
BILLION

healthcare IoT devices are in use today.³



AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR)

AR/VR technologies are powering training, real-time data visualization, memory care, therapy, and pain management.



INNOVATIONS IN ENDOSCOPY AND ROBOTICS

The endoscopy devices market is anticipated to surpass U.S.

\$67.37
BILLION
BY 2027⁴



¹ CDC, Trends in the Use of Telehealth During the Emergence of the COVID-19 Pandemic, October 2020

² Adroit Market Research, Global Remote Patient Monitoring Market Size, August 2020

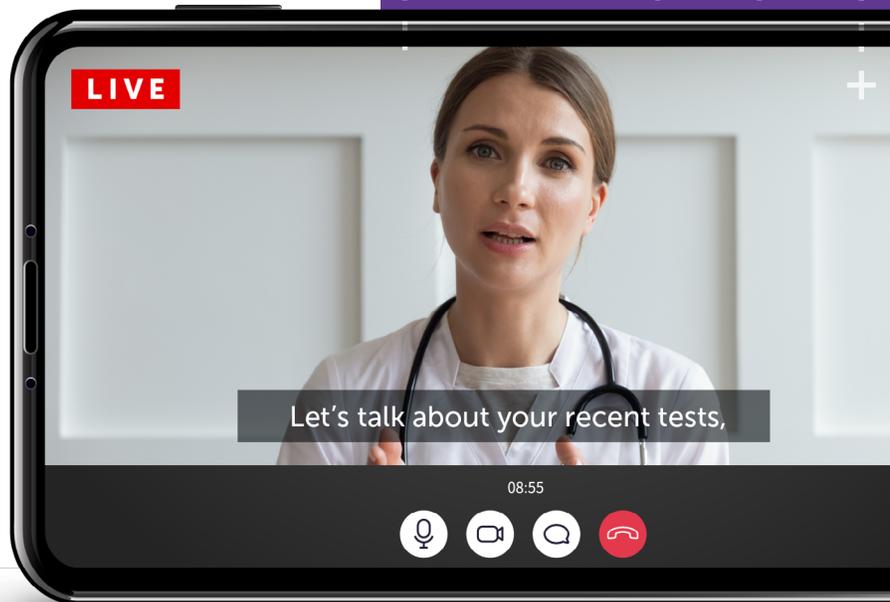
³ Frost & Sullivan, Internet of Medical Things, Forecast to 2021, June 2017

⁴ Precedence Research, Endoscopy Device Market, December 2020

Healthcare + Streaming = A Winning Combo

Social distancing efforts prompted by COVID-19 have [accelerated the need for technologies that replicate real-life exchanges](#). But even after the pandemic is finally behind us, video-enabled healthcare is here to stay.

Organizations are leveraging streaming to improve patient outcomes, enhance industry-wide collaboration, and reduce costs for providers and their patients. Luckily, Wowza's full-service streaming platform provides reliable, low-latency video capabilities that can be embedded into any product or service.



Why Wowza

Low-Latency Streaming

For life-changing solutions like real-time monitoring and video-assisted procedures, Wowza delivers high-quality streams with unmatched speed and reliability.

Superior Video Quality

Get a granular view of procedures and patients so that no detail goes overlooked with capabilities like 4K UHD, 360/VR, and adaptive bitrate streaming.

State-of-the-Art Features

Whether performing an endoscopy or synchronizing video and health data, Wowza offers advanced features and customization options to support your needs.

Healthcare-Grade Security

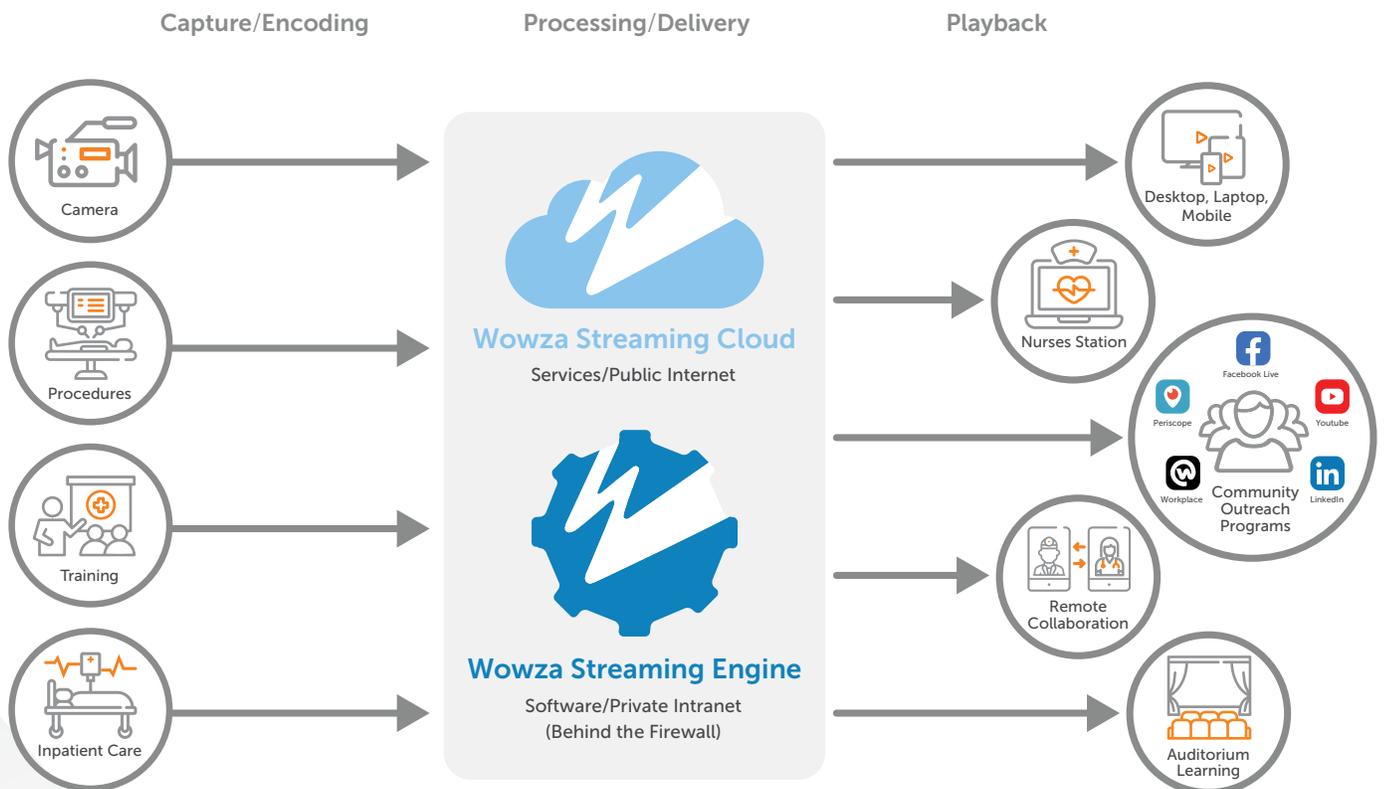
Be confident that your content is protected and HIPPA-compliant with end-to-end encryption, token authentication, and digital rights management (DRM)



“We love the collaboration and support we’re getting from the Wowza team. We want to provide doctors and medical staff with the best streaming possible. Wowza is working with us to make the lives of everyone else better during the circumstances, and we’re all in it together.”

Alex Dizengof
CTO, Carbyne

How Wowza Works



Medical Streaming Solutions

- Low-latency protocols: [WebRTC](#), [SRT](#), [Tuned HLS](#)
- State-of-the-art features: timed metadata, closed captioning, [video on demand \(VOD\)](#), digital rights management (DRM), video analytics, medical device compatibility
- High-quality video capabilities: 4K UHD, 360/VR, [adaptive bitrate streaming](#)



Customer Snapshots



Carbyne

Providing a service that's critical during the COVID-19 pandemic and beyond, [Carbyne](#) connects emergency call centers with video streaming. Each time someone in need makes an emergency call to a center leveraging Carbyne's platform, they are prompted to enable a live video stream with dynamic location and instant messaging functionality.

Carbyne leverages [Wowza's WebRTC capabilities](#) to support sub-500-millisecond video delivery and then repackages the feed into the HLS protocol for broad distribution to paramedics, law enforcement officers, hospitals, and other stakeholders.



Child Health Imprints

[Child Health Imprints \(CHI\)](#) is an IoT medical provider that powers low-latency streaming for remote monitoring of babies in the neonatal intensive care unit (NICU). The cloud-hosted iNICU appliance enables doctors to monitor neonates on life support around the world using [Wowza Streaming Engine](#).

Child Health Imprints enlisted the help of [Wowza Professional Services](#) to synchronize video, clinical, and vital data for early diagnoses and quicker clinical intervention.



Intelligent Video Solutions (IVS)

To support the growing demand for video-based simulation, research, and training, [Intelligent Video Solutions \(IVS\)](#) provides content management capabilities to organizations of every size. Their software relies on Wowza's [enterprise-class streaming software](#) to ensure that users can easily stream and manage their video libraries.

IVS is revolutionizing the healthcare industry with streaming capabilities — whether that takes the form of video solutions for more effective diagnostics or simulation technologies that allow surgeons to perfect their craft.

Conclusion

From smart hospitals to virtual doctor visits, streaming technology is transforming the world of healthcare. And Wowza's medical streaming solutions are a driving force.

Ready to build the next generation of healthcare solutions with Wowza?

[Contact Us Today](#)



About Wowza Media Systems

Wowza Media Systems is the global leader in live streaming solutions. Our full-service platform powers reliable, secure, low-latency video delivery for companies worldwide. With more than a decade of experience working with 35,000+ organizations in industries ranging from media and entertainment to healthcare and surveillance, Wowza provides the performance and flexibility that today's businesses require.

We work with each customer to ensure their success in putting streaming to work for their business. Our promise is simple: **If you can dream it, Wowza can stream it.**

